1:Glacken E-5 (1951-1952) 1953 AC7 Okinawa AC7

pattern is similar to that of the central part. Villages are scattered throughout the area with population distribution comparable with the central area. Before the war, the densities here were over one thousand per square mile,[4] actually considerably more if the mountainous lands are subtracted.

How long this settlement pattern and these regional differences have existed is difficult to say. In studying contemporary environments, like Okinawa, which bear the imprint of long human settlement, it is useful to try to reconstruct the nature of the landscape before the interference of man. At one time, the whole island, with the exception of stony, rocky, and shallow soils and beach and marsh land was covered with forest. There are now no virgin stands. "It is evident that the present forest has been cut over many times. There seems to be no part of the island in which the forest cover has not been disturbed in some way by man."[5] In this light, the regional differences between the forested north and the deforested south are the work of man.

The oldest settlements are thought to have been in the Naha and Shuri areas. Kudaka Island, off the southeast coast, according to one legend, was the site of the supernatural creation of the Okinawan people. The town of Unten, the Port Melville of Captain Hall and Commodore Perry, was, in one version, the scene of the landing of the Japanese warrior, Tametomo, but this was in the twelfth century. Northern areas were inhabited prior to the unification of the island in the twelfth century because they had their own regional chieftans before this. But the population of the north, at least up to the war, has been sparse and scattered. If the forests are any indication, it has been the central and southern regions which have been the scenes of longest settlement. Probably the settlement pattern had not changed much until the Japanese interventions of the nineteenth century and the great changes coming with the recent war, and with the extensive modifications which the Americans have made in the landscape of the central region.

3

General Climatic Conditions

In the Köppen system, Okinawa has a humid subtropical climate. It is a rainy climate with no marked dry season; it has a mild winter and the temperature of the warmest month is over 71.6°F. The average annual temperatures in Naha range from 61° for January and February to 82°F for July and August, and the range from the mean minimum of 55° in February to the

[TEXT CONTINUES TOP of P. 14--Gnalyst]

4 See the population distribution maps in CA Handbook, Ryukyu (Loo-choo Islands, 48-49.

5 Okinawan Forests. (Prepared by the USGS, Military Geology Section under the direction of Office of the Engineer, GHQ, Far East Command), 1948, 2.

311 magnitude of the land problem stands out clearly:

Type of Use	Acreage
Total	287,630
Rice Fields	10,420
Dry Land Crops	57,715
Town Sites, Military Uses, etc.	19,595
Shrub, Grasses, Stony Land, Escarpments	27,800
Forest	153,900
Not Broken Down a/	18,200

a/ Probably mostly cultivated land with some in town sites, some idle, some in military installations.

What stands out is the high percentage of land in forest, shrub, grasses, stony land and escarpments that has little promise for future utilization. These soils now probably enjoy their best utilization.

[118] With a growing population and more economic activity, it is likely that areas in man made installations and settlement will increase, not decrease, and that further land for these purposes will come, not from the stony or forested soils, but from the arable land.

The soil survey documents what is apparent to general observation that the soils suitable for rice, and having water for its successful growth, are a minor percentage of the total area. The chief foods, it is apparent, must continue to come from dry land crops and slope cultivation.

134 311 Even though agriculture is and will continue to be the basis of the islanders' economic life, the lack of suitability of the soils for this purpose is especially striking. Improvement of agriculture, introduction of better methods of farming, the increased use of fertilizers, while effective, could only be a palliative when the total arable land for over five hundred thousand people is in the magnitude of 86,000 acres, if we include all the 18,200 acres in the above table which are not broken down. Even if this figure is too low, the mere fact that over 180,000 of the 287,630 acres is in forest, or shrub, grass, or stony land, and of low fertility is sufficient indication of the land use problem. These facts are supported by farmers' own appraisals of the nature of the soils of their island.

● 161 133 311 The following table, even if inaccurate, certainly states the problem in its proper magnitude:

Table 3

Population of Okinawa Island, 1950	517,600

1: Glacken E-5 (1951-1952) 1953 AC7 Okinawa AC7

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Approximate area in square miles	454
Population density per square mile	1139
Assumed area in cultivation in square miles a/	134.4
Population density per square mile of arable land	3851

a/ See discussion above. The 134.4 square miles is an approximation derived by adding the areas in wet rice, dry land crops, and 18,200 acres which includes land in cultivation, in town sites, military installations, and in idle land, a total of 86,335. An arbitrary approximation of 80,000 acres (134.4 sq. miles) was then taken, very probably too high a figure. Nuttonson, op. cit., p. 12, gives the cultivated area as less than one-fourth of the total area, or 67,200 acres. One of course must distinguish between cultivated land and land that can be cultivated, but 80,000 acres still seems a reasonable approximation.

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If we look at the geography of Okinawa from the point of view of the total physical environment and not merely from the point of view of the amount of arable land available to support the people, we are forced to the conclusion that as a result of long settlement, a growing population and the destruction of the war, combined with periodic and inevitable property and crop damage from typhoons, that the environment is not suited for the comfort and well-being of large numbers of people. Intense fertilization will keep the good soils growing crops. Increase of trade and some industrialization may help as long as they do not lead to destructive exploitation of the forests, and some small help may come from the reclamation of unused or cut over land.

5

Conclusion

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Almost one hundred years ago, one of the observers on Commodore Perry's expedition wrote,

> "That the island has been peopled for many ages, is evidenced by the graded roads and deep cuts, the structure and manifest age of the bridges, the antiquity of the villages, the great amount of stone-work in the towns and in the fortresses--some old and dilapidated, some modern and in repair; but, above all, by the incalculable amount of labor done in grading the land for culture. That which is now so perfect, could only have been made so by degrees, like structures reared by the ant or bee."[8]

8 Hawks, Perry's Expedition, as cited, II, 36.

1: Glacken E-5 (1951-1952) 1953 AC7 Okinawa AC7

Another departure from the past was that Okinawans, soon after the turn of the century, were provided with opportunities for emigration. The history of Okinawan emigration is not well known. But in the twentieth century, the people of Okinawa changed from an almost complete ignorance of the outside world to one of the most widely travelled and informed peoples of the Orient. Okinawan settlements in the twentieth century were scattered in many parts of the world, such as Peru, Argentina, Brazil, Hawaii, and the Japanese mandates of the Pacific, Singapore, Japan, Manchuria, and Korea. The cessation of this historic emigration is an event pregnant with meaning for the future. The population and its natural increase now must subsist on the island.

Late nineteenth and twentieth century improvements in roads and communication, modest as they were by American standards, broke down some of the isolation of the three districts of Okinawa. The forests and the lack of roads to the north had always discouraged contact. Much of the trade in firewood between the north and the south, even up to the recent war, was done by ship. Elsewhere there were only paths and in the north, not even these. In 1895 Chamberlain wrote of the sparsely inhabited northern (Kunigami) forest area whose inhabitants were "despised for their poverty and rough speech by the natives of the central and southern provinces." Later on he remarked about the "groans of Japanese officials when obliged to go their country rounds," and, that, in the north it was necessary for them to carry a tent.[28]

As the main island in the newly created province (ken) of Japan, Okinawa benefitted from the scientific approach to agronomy pursued enthusiastically by the Japanese, in contrast with the Chinese and the Koreans before their annexation. Concentration on the development of suitable varieties of rice, the study of sugar cane, plant disease and agricultural techniques represented a body of knowledge that could be applied with local adaptations to all parts of the empire.

Direct Japanese annexation meant also the disappearance of the top heavy native nobility or gentry (shizoku) to be displaced by the Japanese elite, although membership in the Okinawan nobility continued to be recorded in the family registers up to the recent war. The displacement of the old higher social classes resulted in a certain levelling of all the people, a levelling which continued up to the war, and was accentuated in an economic way by the widespread impoverishment of rich and poor alike in the campaign for Okinawa.

7

Okinawa in World War II

The terra incognita described by Bayard Taylor in 1853 became the

28 Chamberlain, as cited, 294, 459

1: Glacken E-5 (1951-1952) 1953 AC7 Okinawa AC7

Generalities on the Population History of Okinawa Island

Virtually nothing is known, to my knowledge, of the growth of population in Okinawa in historic times. Early travellers made some estimates, but they gave no basis for them. In a previous chapter, it was mentioned that the introduction of the sweet potato in the early 17th century must have allowed a greater population on the island than had hitherto been the case. No doubt also malaria and other diseases kept the population down, at least until the latter part of the 19th century. This ignorance of population growth extends down to recent history.[1]

There seems to have been very little immigration to the Ryukyus and the population has probably been homogeneous for long periods of time. There were many Japanese in Okinawa, but these were largely in the towns and main cities. Most of them left after the war.[2] This meant that the population of Okinawa continued to be made up of preponderantly the native born, though in recent years there has been some immigration of Amamians.

Emigration during the 20th century has been the outstanding fact in the population history of the island. Little is known of the nature of this emigration, but it is believed to have started in the early years of the twentieth century. Until World War II, emigration was the answer to the problem of a population that was growing beyond the ability of the island's resources to support it. It has been estimated that the emigration from Okinawa prefecture in the period 1920-1940 was over 193,400 persons. This represented a loss of 98% of the estimated natural increase for the 1920-1940 period. It was 34% of the prefecture's total 1920 population.[3]

The Okinawan campaign, also, was accompanied by large scale displacements of people who remained on the island. It was estimated that in a pre-invasion shifting of the population, over 3/4 of the people

[Text Continues on TOP of P. 60--analyst]

1 Dr. Green in 1853 estimated the population of Okinawa at 150,000 or possibly 200,000. But this was only a crude guess. Hawks, Perry's expedition to Japan, II, 36. For population estimates prior to World War II, see CA Handbook, as cited, 45-51.

2 As of Nov. 30, 1946, 57,345 Japanese, 1,755 Koreans, and 21 Formosans had been repatriated from the Ryukyus, with 3,706 Japanese remaining to be repatriated. See note 3 following.

3 Newman, Marshall T. and Eng, Roman, L. The Ryukyu people, a biological appraisal. Amer. Journ. of physical anthropology, n.s., 5 (1947), 113-57. Reference on pp. 135-36. This estimate was made by subtracting the estimated natural increase from the total increase, 1920-40, making allowances for the under registration of births. On post-war population history immediately following the war, see pp. 135-46 of this article.

1:Glacken E-5 (1951-1952) 1953 AC7 Okinawa AC7

were in the north and central portions of the island.[4] During the campaign, the displacements of people and the destruction of villages in the south were particularly striking. Large numbers were sent to the Kunigami region. "There they overwhelmed the local inhabitants and all suffered great privations, despite the efforts of U. S. personnel to properly feed, clothe, and house them." By June 1, 1946, 138,000 had been resettled, and as of July 1 of the same year, there were still 125,000 displaced persons on the island.

The war and the subsequent occupation have stopped the historic emigration of Okinawans. Repatriation began in 1946. By November 30, 1946, a year and four months after the conclusion of the Okinawan campaign, 183,077 Okinawans had been returned, 142,713 from Japan, 26,003 from the Pacific islands, 12,154 from Formosa, 1954 from Hawaii, and 253 from Korea. An additional 36,720 were awaiting repatriation at this time. The result was that "by November 30, 1946, repatriation brought the population up to within 40,000 of its early 1944 level." The total population of the Ryukyus on February 22, 1944 was given as 857,019, and 817,160 on November 30, 1946. In this short period of 16 months, the war losses had been largely made up. While these figures are Ryukyu totals, Okinawa island, as the largest and most populous island in the chain undoubtedly reflected these trends.[5] According to the 1950 census, the population of Okinawa island was 517,600.

The twentieth century history of the population of Okinawa is therefore one of large scale emigration up to the war, wholesale displacement of people within the island during the campaign of 1945, the repatriation of considerable numbers of Ryukyuans following the conclusion of the war, and the present period of growth of the population under conditions of peace, health measures, and without the historic outlet of emigration.

2

Village Populations and Their Characteristics

One can only surmise what has happened to the population structure of Okinawan villages as a result of the war. The old records which would furnish materials for detailed comparisons have been destroyed; hence, one can know only vaguely how the present characteristics of village populations compare with the pre-war conditions. The contemporary characteristics of the population of each of the villages studied and for the totals of each of their respective townships are shown in the accompanying population pyramids and in the tables illustrating sex and age distribution at five year age intervals (Western age count).

In the totals of the three villages and the two townships females substantially outnumber males, though there is considerable variation in the numbers and proportions within the age groups.

[TEXT CONTINUES TOP of P. 61 -- analyst]

4 Ibid, 137. Quotation is on pp. 140-41.

5 Neumann and Eng, as cited, 140-41, 143. See also the very interesting article of Henry S. Bennett, The impact of invasion and occupation on the civilians of Okinawa. United States Naval Institute Proceedings, 72 (1946), 263-75.

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There are noticeably fewer children of both sexes in the 5-9 age group. These are the children born from about 1942 to 1946. If these statistics are presented in further detail for the age groups under twenty, further distinctions are clear. These are shown in the following table:

Totals	Hanashiro Village			Minatogawa Village			Gushichan Township			Matsuda Village			Ginoza Township		
	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F
Under 5 years	118	70	48	198	101	97	1153	606	547	230	120	110	849	446	403
Under 1 yr.	24	14	10	22	12	10	215	112	103	50	30	20	171	89	82
1-4 years	94	56	38	176	89	87	938	494	444	180	90	90	678	357	321
5-9 years	50	25	25	111	63	48	566	285	281	166	79	87	638	306	332
10-14 yrs.	72	32	40	128	53	75	818	393	426	182	84	98	704	336	368

In Gushichan-son, an active theatre of the war, the proportion of the children under 5 to those from five to nine is 2:1. In Ginoza-son, a much less active theatre, the proportion is 1.3: 1. The corresponding figures for the villages are:

Hanashiro (Gushichan township) 2.4 : 1
Minatogawa (Gushichan township) 1.8 : 1
Matsuda (Ginoza township) 1.4 : 1

In every case the totals of the age group of 10-14 are greater than in the 5-9 year group. In all villages, and in both townships, males are more frequent than females in the age group under one year.

The greatest imbalance in the sex ratios is in the age group from 20 to 49; here the females outnumber the males. During the war years, these groups ranged in age from approximately 10-15 to 39-44 years of age. This group now includes the main child bearing part of the population.

After 50 years of age, the balance between the sexes is somewhat restored and, with some minor deviations, they tend to be about equal, with women predominating at the highest age levels, 80 years and over.

These village statistics indicate that the effects of the war were shown in a shortage of males of young and middle age, an excess of women, to which pre-war emigration of men probably also contributed, and the lowered birthrate during the war years and the probable high infant mortality during the Okinawan campaign. The present broad base, represented by those under 5 years of age in the pyramids is indicative of what might be expected under the Occupation, with public health measures and no emigration. The pyramid for Gushichan township is especially striking in the comparison between the under 5 and the 5-9 age group.

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If these figures are typical of Okinawa island, they furnish a hint as to the trend toward population increase, a combination of such circumstances as peace, lack of conscription and foreign service, repatriation,

[Text Continues TOP of P. 65--Analyst]

stoppage of emigration, and public health measures. While the following statistics are worthless from a demographic point of view, they may nevertheless indicate the village trends.

Matsuda Village, 1951

	Births	Deaths
Total	46	11
Male	26	5
Female	20	6

In Gushichan township, where individual village totals were not available, the statistics show a similar trend:

Gushichan Township, 1951

	Births	Deaths
Total	263	52
Male	140	26
Female	123	26

3

What Happened with Repatriation

In the peace time emigration before the war, the intention to return was almost universal. Typically a first son, as the future responsible person for his parents, emigrated as a young man, before marriage, with the intention of accumulating savings and supporting his parents during his absence, later returning to marry if he had not acquired a wife abroad. People in the villages now say that the desire to return has declined sharply with the economic hardships and the threat of renewed warfare, and that Okinawans in foreign countries will probably remain there for the rest of their lives. Okinawans living abroad, according to family registers in the villages, are now mostly in Peru, Brazil, Argentina, and Hawaii.

The effects of repatriation on the township level can be seen from the following statistics for Gushichan township. Comparable statistics were not available in Ginoza-son.

Pre-war population, 1940	6445
Deaths resulting from the war	1700
Repatriates	1030
Population, December 31, 1951	6267

Despite the fact that deaths resulting from the war must have been between 20% and 25% of the total population of the township, repatriates

1: Glacken E-5 (1951-1952) 1953 AC7 Okinawa AC7

plus the excess of births over deaths were sufficient six years after the conclusion of the war to bring the post-war population of the village within 200 of the pre-war level.

Okinawans returning to Hanashiro came largely from Japan, the Philippines, Manchuria, Formosa, the South Seas and a few from Hawaii. From Hinatogawa, the areas of former settlement were broader, probably reflecting a wider activity of the fishermen. They came from Java, Palau, Singapore, the Philippine Islands, and Taraua. Some had previously returned voluntarily from Hawaii and Peru before the war. The largest segments came from the Philippines and Taraua, the smaller groups from Hawaii and Peru. The repatriates to Matsuda also came from Japan, the Philippines, Hawaii, and the South Seas.

One consequence of the pre-war emigration and of the repatriation that followed was that each village after the war had a group of people who had been in foreign countries or had relatives still residing in foreign areas.

In the villages studied, according to the residents living there now, repatriation was not accompanied by the tensions and the ill feeling that was so conspicuous in post-war Europe, especially Germany. There were no cliques between those who had stayed during the war and those who returned to live beside them.

The reasons for this are probably these: many of the repatriates even though absent a long time owned land in a village. This was true of Hanashiro and Matsuda, the agricultural villages, and to a lesser extent of Hinatogawa. Some adjustments were necessary. The land owned by these people had not been idle during their absence. If a first son returned, in most cases his younger brother was cultivating the fields and occupying the family house. He, in the absence of his eldest brother, acted as head of the house. When the first son returned, he received the possessions and assumed the responsibilities of the head of the house, and in turn gave his younger brother land to establish a branch household. When the returned member of the family was a second son, the adjustment was easier. The first son, if possible, gave his younger brother a house site and fields to cultivate.[6]

Other relatives, parents, younger or older sisters, nephews, or nieces were absorbed within the family, the parents or grandparents resuming a retirement which they would have had in any case, while the younger relatives became working and contributing members to the family. They did not come back to an altogether strange place. They or their parents had been born there, and their names had remained in the village family register.

6 The reasons for these acts will be made clear in Chapter 6 on the family system.

combined with the destructiveness of typhoons, make for an unproductive life in terms of rewards for work done. To these, there is now being added a fourth realisation, that there are too many people in Okinawa. Greater mobility has increased this awareness.[8]

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8 These remarks, too, are based on impressions. Neither would I claim that they represent a majority opinion. Polls with samples competently chosen could only determine these attitudes. But complaints about the poorness of the land are proverbial among Okinawans. So are the discouragements coming from the typhoons.

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arable land available for cultivation. House sites cannot be set up on rocky or mountain land away from the village. Whether on the island as a whole the increase in population, the repatriation and the stoppage of large scale emigration will in the future seriously diminish the amount of land available for agricultural uses is an interesting question, but there certainly is a direct relationship between population growth and land taken up with house sites.[5] Not only will a growing population enforce greater demands on the land, but it will inevitably cut down on the amount.

Among the fishermen of Minatogawa, there is a little more fluidity in the establishment of branch families. There are seldom enough lands to subdivide, and only about 50% of the fishermen own land in addition to their house site. The branch household is established according to the son's taste, and the father may give money if he can afford it so the son can set himself up in Itoman, Naha, or elsewhere. The usual procedure here is to give land in a former agricultural area of the village, land which was developed in the southern part of the village as a result of the destruction of the war in other parts. Here formerly arable land was taken over directly for residential use.

In Matsuda, it is possible to use newly developed areas. This community, unlike the other two, is a series of sub-settlements. In two of these, branch families have settled, one near the seashore, and the other on reclaimed forest land. In both of these areas, the pattern of settlement is different; the clusters of houses give way to the scattered houses, some standing out alone on the top of a knoll or hill, some near the forested slopes of the hillside. In these areas, there is an atmosphere of pioneer settlement. As in Hanashiro, the buying of near land and the selling of far off land and exchange of land are practiced. Since the reclaimed area is considered to be less productive and less desirable, the poorer families are able to purchase land here for their second sons.

5

The Pivotal Importance of the First Son

The key person in the family system is the first son. He normally succeeds to the house at the death or retirement of his father. The father may not legally retire before 60. In rare cases--none were encoun-

5 In general, house and village sites are on arable land, but the quality of this land naturally varies from place to place. See any of the 11 sheets of the Okinawan Soils Map and the discussion in the Remarks column of the legend with reference to the types of soils on which village sites are found.

1: Glacken E-5 (1951-1952) 1953 AC7 Okinawa AC7

179 423 have been affected by roads and trails which have now disappeared.

[115] Old residents[5] of Matsuda and neighboring villages were able to furnish more specific clues regarding the old system and its relation to other phases of village life. These old people estimated the [161] population of Matsuda at the close of the old system at about 360 persons, compared with the present population of 1368. The system operated under much less acute population pressure than exists today. [165] Deaths, especially from malaria, and a high infant mortality kept the population down, although introduced Japanese hygienic measures helped.

[311] Under the old system in Matsuda, there was a continual clearing of land, mostly around the settlement. There seems little doubt that land reclamation and clearing has been going on slowly from the earliest historical times in Okinawa. The land cleared remained under village ownership, but the persons who cleared the property were allowed to hold it for use without giving it up for periodic redistribution. Technical ownership remained with the village.[6] Fences and stone barriers were erected as a protection against the wild boar. But the large scale reclamation and the private ownership of genya land seems to have occurred after the close of the old system.

The dividion of lands at the beginning of the new system has set the boundary pattern of many plots. In Matsuda there were instances of land which has retained the same boundaries that it had under the old system. There was general agreement among the old [428] that the form, boundaries, and areas of land plots have changed very little since the times of the jiwari-seido. This would be par- [425] ticularly true in the case of property which had passed down through the first son. Changes came from the establishment of branch families and sales and purchases. In these areas, however, buying and selling have been infrequent.

195 423 [191] The history of land tenure in Okinawa, therefore, is different from that of Japan with its long history of tenancy, whose accumulated problems finally led to the land reform of 1946 during the Allied occupation. The present system of land tenure in Okinawa is a little over 50 years old.

178 423 311 The chief influences of the old system were to set in a form recognizable to the present, the pattern of land holding, to establish land classification, and apply it on a very localized basis.

[115] 5 I am indebted here to Shinzato Zensuke of the village of Sokei (Ginoza-son), and to Oshiro-san of Matsuda village (Ginoza-son) both over 70 years of age for their recollections of the history of the system in Matsuda.

[114] 6 This differs from Goldschmidt's account, cited above, in that in this case the land became a usufruct, in the other actual ownership.

1: Glacken E-5 (1951-1952) 1953 AC7 Okinawa AC7

wood and lumber for Japanese army uses and for air raid shelters were in demand, (2) the burning in the course of the war, and (3) the intense cutting after the war for firewood and rebuilding. 313 727

Okinawan traditions relating to forest care have a positive value and it is worth while to recapitulate them here. Local old men and antiquarians in Matsuda give credit to Saion who wrote a long treatise on agriculture and is said to have intentionally devised superstitions to save trees. Death or misfortune would come to him who cut the trees, especially those in sacred groves or on the tops of mountains. Some local residents have said that the gods of the mountain are really not of religious inspiration at all, but had their origin in the conscious desire of Saion to save the trees. While there does not seem to be any truth in this assertion, since these deities of the sacred groves and mountain tops reach far back into antiquity, there is no doubt that sacred groves and houses of the mountain gods saved trees that otherwise would have been cut down. (In China and Japan, religious shrines and holy places have also been areas of the preservation of trees). 313 173 [178] [171]

Present attitudes were summarized by a Matsuda school principal who said that beliefs in mountain gods and in death and misfortune following cutting trees were dying out, and that these old beliefs had been replaced by awareness of the scientific reasons for preserving the trees. [183] [176] [177]

In Matsuda, pride in the trees, in the groves that line its hill tops and overlook the narrow valleys and ravines planted to rice and other crops is a conspicuous part of village experience. There are trees along the main road near the town that are said to have been planted in Saion's time under his inspiration.

These favorable traditions are helpful. They do not guarantee the preservation of the forests. Previous experience has shown this. From what may be surmised of the history of Okinawan forests, the destruction of modern times has been correlated with war and the expansion of economic activities. We may speculate, too, that previous deforestation was slow, inexorable and related to the clearing of accessible stands near settlements, and the extension of these settled areas as they grew. "Most of the accessible primitive forests have been exhausted," Dr. Green wrote in his report to Commodore Perry.11 The need for fuel increases with population. In China, Japan, Korea, and Okinawa, the relation of forests, either as a source for lumber or fuel, to population growth and settlement is a very intimate one. This is a basic consideration in discussing not only the "patterns of culture" but the relation of culture to the natural environment in this part of the world. [311] [161] [171]

11 Hawks, Perry's expedition to Japan, Vol. II, 35

2:Maretzki & Maretzki E-5 (1954-1955) 1963 AC7 Okinawa AC7
Taira

home country. Nevertheless, many aspects of Okinawan life still suggest an earlier phase in which independent developments gave the islands their own particular culture.

The Okinawan people, approximately 655,000 as counted in 1954, live in an area of about 454 square miles. Their major economic activities have traditionally been agriculture and fishing. In 1945 a long, peaceful existence was brought to an abrupt end during the final battles of World War II in the Pacific. As a result of world conditions Okinawans have been placed under American administration for an indefinite period of time. Today large numbers of men—and some women—find employment as unskilled and semiskilled laborers with the American forces. Gradual training for highly skilled jobs widens these opportunities for employment. Indirectly Okinawan life is influenced by Americans through stimulation of trade, building, and improved health conditions. Land requirements of the American forces in some areas also have influenced the settlement pattern. While these changes have affected the entire island to some degree, the greatest changes are noticeable in the central part around Naha where American administrative and military personnel are located. The village of Taira in the northern province of Kunigami, where the present study was located, had been subject to relatively few of these postwar changes in 1954. Isolated since earliest times because of mountainous terrain, this part of the island participates, as it probably always did, marginally in cultural influences which affect the center of the island. A great deal of cultural stability has therefore been preserved until the present day.

Nevertheless, it is useful to remember that the population of northern Okinawa is linked with the rest of the island by an efficient communications system. Roads connect almost all settlements in the north with the central island, and a bus transportation system extends its service into the remote areas. But long before all villages were connected by road with the center of Okinawa, people of Kunigami province traveled by foot over the many trails which traverse the mountains, and, since the turn of the century, many have left their home villages. Some went to Japan as laborers; others settled in the Japanese-controlled Islands of the Pacific, and some families joined the numerous Okinawan settlements in South American countries.

LANGUAGE

Taira people are bilingual. Okinawan, which linguists consider a separate language, has many regional dialects, some of which are not

Population Density The pattern revealed in a map of population density---Map 4---is approximately the same as that for percentage of arable land. It is somewhat complicated, however, by the urbanization that is going on in Nakagami. A more detailed discussion of the population movements responsible for this situation will be found in a later section of this report. [161]

Farming Almost all of Okinawa's rural people farm, and many are engaged part time in home industries which utilize local products. Particularly noteworthy are the vegetable-producing areas. Kitanakagusuku and Ginowan 'sons' are centers of vegetable production for the American military forces.[1] The inland 'son' of Haebaru grows 53% of the gunto's tōgwā, a wax melon that is a favorite Okinawan food. [433] [241] [262]

One of the most remarkable agricultural areas, Tomigusuku, lies south of the Naha-Mawashi-Orcku urban complex. It grows many kinds of vegetables for the cities, and ranks high in other production. Tomigusuku stands first in the gunto in acreage of green beans, muskmelons, bananas and eggplant. Almost one-fifth of the latter comes from here. It ranks second in tomatoes, and ties with Yonagusuku for second place in weight of mat reeds produced. Miwa, in the far south, leads the gunto in soybean acreage, while Nishihara occupies a similar position in acreage planted to pumpkins.

The most remarkable 'son' in northern Okinawa is Nakijin on the north shore of Motobu peninsula. It leads in gunto acreage of sweet potatoes, leaf tobacco (75.2%), and cucumbers. In animals it leads in numbers of pigs and ducks. It also produces 7% of the banana cloth, or 'bashōfu', of the gunto. This 'son' is mainland Okinawa's chief wheat producer. [231] [235]

The small Okinawan acreage of Irish potatoes is found in Ōgimi-son to the northeast. Yabu is noted for its pickled giant radishes, or 'takuan'. The offshore islands lead in certain special crops. Minami Daitō leads in sugar cane, wheat and barley. Ie Shima seconds in barley, and Izena seconds in wheat. Ie Shima is far ahead in acreage of Irish beans, or 'azuki', accounting for 41% of the gunto's planted acreage of this crop. Though Ie Shima ranks only 15th in soybean acreage, it produces almost a fifth (18.4%) of the gunto's 'miso', in which soybeans are used as a base. 'Miso' making is one of the main home industries on the island. Ie Shima, Kamimotobu and Nakijin retain some of the old 'awa' (German millet) complex, between them accounting for over a third (34.3%) of the acreage of that crop in Okinawa gunto. Kamimotobu is mainland Okinawa's leader in acreage planted to ordinary millet ('kibi'; Panicum miliceum). [252]

Nakagami has little of agricultural distinction. Yomitan leads the mainland in acres of barley and number of rabbits. Gushikawa is second rank in sweet potato acreage, but produces about two-fifths (39.4%) of the gunto's sweet potato starch. It leads in numbers of goats, and is second though not outstanding in numbers of bullocks. [231]

[1] Most of this and following paragraphs derive from Ryūkyū tōkei hōkoku and Okinawa guntō no tembō. Some is based on personal observation and interviewing. [127]

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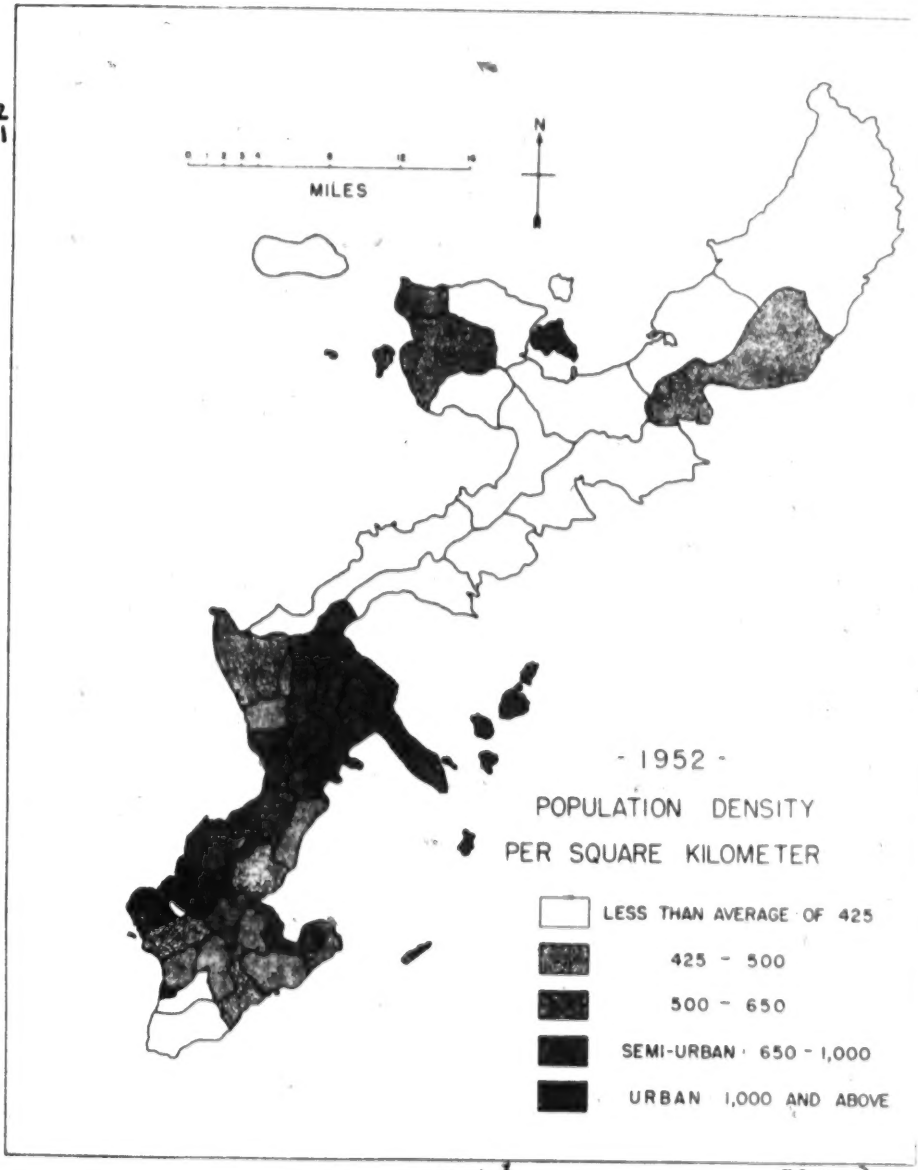

Map 4 1/4

(P.2-C)

1/4 [See pages 222-224 for data upon which this map was based--Analyst]

When a great number of people are repatriated, it is far more likely that more will find their way into urban areas than into rural areas. This tends to remain true in spite of prior resettlement in the country villages. 167 727

People and the Arable Land One of the best indicators of urbanization is the number of persons for each acre of arable land under cultivation. In Okinawa, cultivation of the sweet potato permits a much larger population to live off an acre of land than would be true if other crops were raised in its place. The following scale has been set up, and is the basis for Map 5:[1] 161 369

Areas of Occasional Surplus	Up to 6 persons per acre
Areas of Moderate Self-sufficiency	6-9 persons per acre
Areas of Definite Deficiency	9-20 persons per acre
Semi-urbanized Areas	20-30 persons per acre
Urban Areas	Over 30 persons per acre

In examining Map 5, which is based on conditions at the end of 1950, it is seen that the entire area from Oroku to Ishikawa, and from Katsuren to Yomitan, is included in the food-deficient areas. This is true also of Nago, the southwestern half of the Motobu peninsula, and the far north 'son' of Kunigami. The urban node in the south results from prewar settlement. The urbanized areas of Kadena, Chatan and Goeku of course are postwar phenomena. The fact that this urbanized three-'son' block is bordered by semi-urbanized areas, while the urban areas of the south are not, indicates that a greater center of attraction is found in this area. The answer is the amount of military employment available here.

In discussing the postwar growth and rearrangements of population it is convenient to divide the discussion into two parts. The first will deal with the period prior to 1951, when repatriation and a mild amount of construction were prevalent. The second period under consideration is from 1 January 1951 to 31 December 1952, during which time accelerated military construction was the rule, and repatriation almost non-existent. 161 128

Population Increase from 1940 to 1950 In this decade the population of the Ryukyus increased by 20%, while that of Okinawa Guntō increased by 22%. Map 6 indicates the areas of relative decrease and increase. Much of Shimajiri suffered great losses in the fighting, and by the end of 1950 still registered a net decrease for the decade. The relatively undestroyed areas from Ishikawa north experienced a greater than average growth, and the scattered military installations in Goeku, Misato and Gushikawa attracted a great number of people. Ishikawa owed its growth mainly to its designation as the postwar temporary capital city. 161

The setting up of a military government area on the Chinen peninsula attracted a few people there, as did the repair of the Japanese airbase in Oroku. The height, relative remoteness and almost total destruction of Shuri, combined with the military requisitioning of much of the Naha port area, contributed greatly to the unexpected growth of Mawashi.

[1] Figures for each political area for all maps are given in the appendix.

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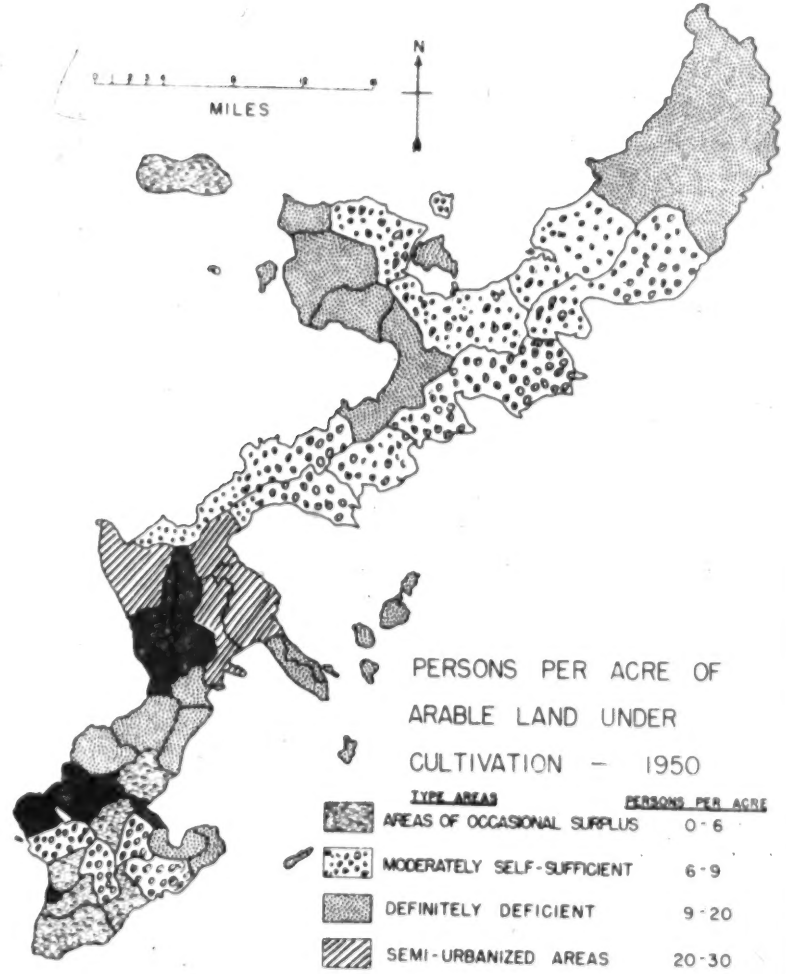

Map 5 $\frac{I}{A}$ [p. 96-A]

$\frac{1}{A}$. [See pages 222-224 for data upon which this map was based--Analyst]

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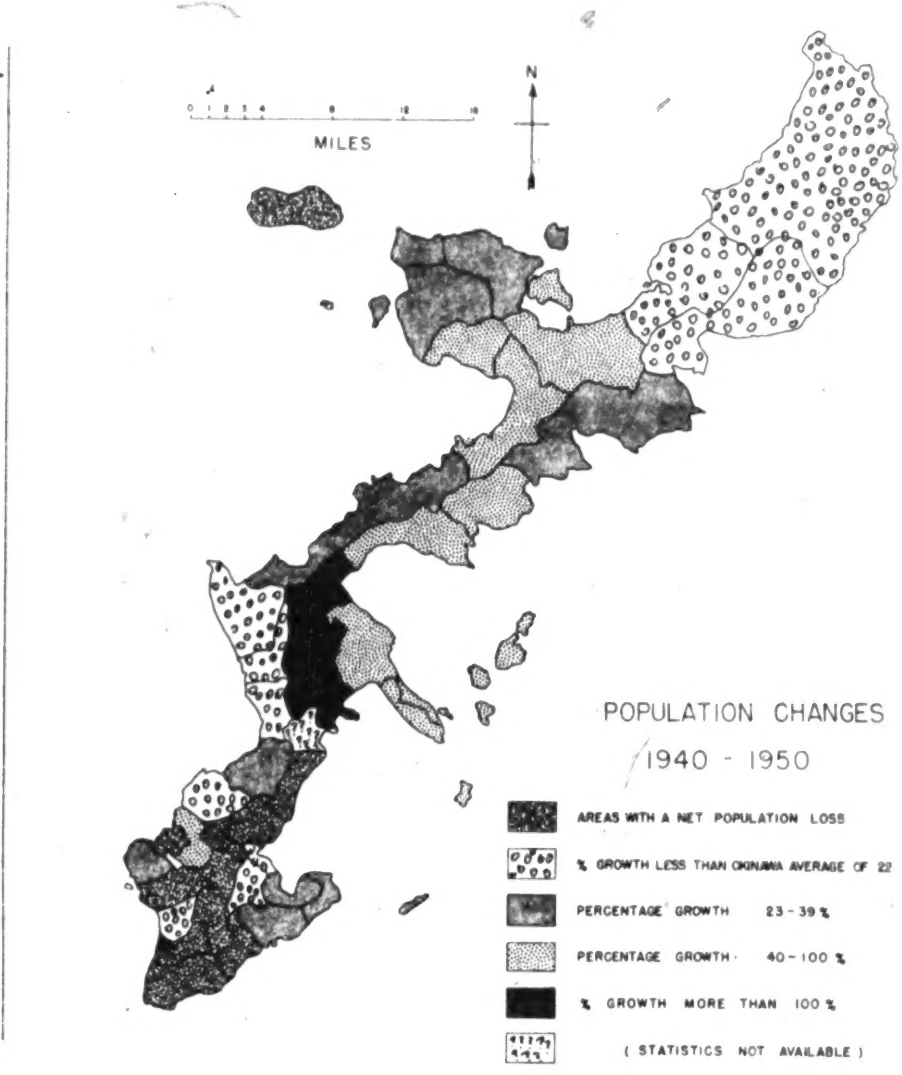

Map 6 [1] [P 96-B]

1. [See pages 222-224 for data upon which this map was based--Analyst]

161 The percentage growth categories used on Map 6 are as follows:

Negative Growth
Less than Okinawa Average of 22% Growth
23-39% Growth
40-100% Growth
Over 100% Growth

Population Increase During 1951 and 1952 The accelerated military construction program has been quite important in drawing people to the main island of Okinawa. This is shown by the fact that in the years 1951 and 1952 it gained over 47,000 inhabitants. More than 11,000 of these were contractors and construction workers from Japan. About 2,300 more such workers arrived from Japan in the first seven months of 1953.[1]

161 During this two year period, Okinawa's population increased by 5.55%. On Map 7 all areas with an increase of less than that amount are considered as areas of emigration. Those areas where the increase was more than 5.55% are shown as areas of immigration.

All urban areas except Ishikawa continued to grow. Goeku and Kadena, which had in the previous decade grown amazingly fast, continued to be among the fastest-growing 'son' on the island. On the other hand, Kunigami-son and the entire east coast north of Ishikawa City reversed the trend of growth noted on Map 6, and became areas of excessive migration. In part this was due to the improvement of roads along the east coast, thus making the urban trek easier. But it owed just as much to the demand for skilled carpenters, who were abundant along the east coast.

If data were available at the 'aza', or village area level, the urban trend could be localized with greater accuracy. Military government personnel concerned with problems on the island relative to urbanization and its pace are advised to work with population data on the village ('aza' or 'ku') level if greater accuracy is desired. This information is rarely if ever presented in that detailed form to agencies of the Government of the Ryukyu Islands, and local inquiry must be made.

162 The Sex Ratio Okinawa shares with most of the Orient a great density of population per arable acre of land. Aside from this, the outstanding fact about the population of Okinawa is the great preponderance of women over men. There are about 90 men for every 100 women in this area.[2] This excess of women is reflected in such sociological phenomena as prostitution, illegitimate and common law children, women functioning as heads of households, and a high fertility ratio. The reasons for the excess are somewhat complex, but the most important factor is the recent war, in which many

1 CAARI, p. 78.

2 The standard demographic definition of sex ratio is "the number of men for each 100 women."

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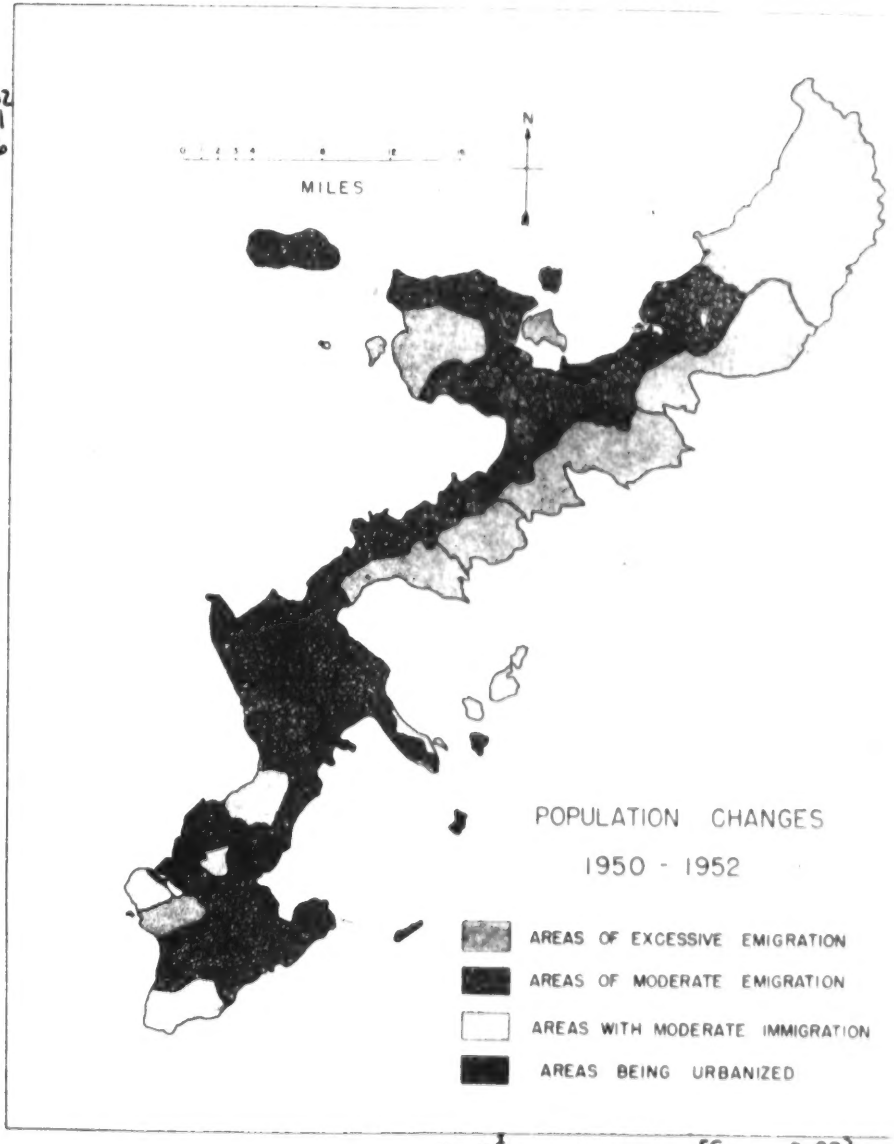

Map 7 1/4 (facing P 98)

1/4 [See pages 222-224 for data upon which this map was based--Analyst]

[Kochinda-son]

586 property. After that action he was called by the villagers "white ant", or
159 "termite". From the beginning, community feeling was behind Yae and opposed
829 to him. Circumstances of her birth carried little stigma, but his actions outraged everyone. People thought it quite natural that she should live with another man and bear his child before Jirō formally recorded the divorce in the 'koseki'. As far as the villagers were concerned, the divorce had become effective when Jirō sold his inheritance.

161 3. A Note on the Accuracy of Population Statistics in Okinawa

Much conflicting population data were encountered by the SIRI team. Hence this note is included as being of possible value to military government and to other social scientists who may work in Okinawa at a later date.

Census Figures Year-end census figures, which are based upon de facto count rather than de jure count are the most accurate, since they include all persons actually resident in the village at the time, as well as 'museki', or persons without an official local 'koseki' record.

Many times these census figures are supplemented by figures reporting both the above and all persons visiting in the village or town at the date of census. These "visitors" may include students, peddlers, guests at inns, persons in institutions, and persons visiting friends or relatives. A few examples from the 1953 statistics report of GRI are given below:

Table XXVII

Political Unit	Koseki Population	Resident Population	De Facto Population
Okinawa Guntō	649,997	627,556	637,215
Shuri-shi	22,372	21,921	23,015
Nago-chō	17,067	16,955	17,255
Goeku-son	21,065	20,931	20,749
Kochinda-son	8,738	8,504	-not given-

161 The Museki People 'Museki' is a term applied to single individuals or fami-
641 lies who are not registered in the political unit where they are living. They may maintain with varying degrees of attention and accuracy a 'koseki' elsewhere. Some simply may have no registration in a 'koseki' anywhere due to a semi-wandering life or a criminal bent. These latter are said to have no legal rights. "How can anyone have rights unless he has a 'koseki'?"

161 Ad Hoc Counts Persons who wish an accurate count of the people in any
621 village are advised to consult directly with the village headman, or 'kuchō', rather than with the 'son' office. He is in constant daily touch with village affairs, and is the most knowledgeable man to contact about village matters. Figures given by a 'kuchō', usually are the most accurate for total number of people in the village at any given time. 'Museki' persons are included, but those who are legally residents of the village and living elsewhere are not included.

'Koseki' Changes The present 'koseki'---those used when this SIRI team visited Okinawa---are temporary ones set up about 1948. In some very few areas 'koseki' remain from before the war. Registration in the 'koseki' is not automatic when an individual or family moves into a community. Hence there may even be persons who have bought houselots in a village, rented land there and raised crops---without ever having contacted the 'son' office for change of 'koseki'. Three such instances were observed in Nanahan. Areas such as Goeku-son and the Naha-Mawashi area, which contain many "floaters", may actually have a much larger population than is reported in the census figures. 161* 217

'Koseki' Inaccuracies The present 'koseki' not only does not contain information on 'museki' persons, but it is often very far behind---sometimes as much as two years---in recording the movement of persons and families out of the villages and into urban centers.

Because old 'koseki' were for the most part destroyed, information on birthdates is very often inaccurate. The Kochinda 'koseki', for example, is full of requests for changes in birthdates, changes ostensibly sought on the basis of more accurate family records recently discovered or assembled. However, some changes may conceivably be sought in order deliberately to misrepresent one's age to a Company or to the military. Also, the possibility should not be ruled out that some persons change their recorded birthdate in order to bring about a change in their luck. [777]

Accuracy of Kochinda-son Data The statistics on household heads presented above represents the total number of people registered in the Kochinda 'koseki'. It does not take into consideration those persons and families who are recorded as having temporarily moved elsewhere. 217 162 592

Many people in Kochinda who have moved to the city have failed to record that fact in the 'koseki'. Many times this is attributable to apathy and poverty, but may often involve the matter of pride in having one's record in the same 'koseki' as one's close relatives. There is an additional factor at work: most Okinawans realize that the present urban trend brought about by the presence of the military is a temporary phenomenon, and they fully expect to return to the village in event of a lessening of urban opportunities. Thus Okinawa follows the Japanese pattern---by tightening their belts and working a little harder, the farmers can always make their plots feed an additional mouth until some adjustment can be made. [369] [829]

Hence the Kochinda statistics as presented above represent some 2,000 household heads and some 10,000 persons, rather than the census count of some 8,500 persons and 1,970 household heads.

The New 'Koseki' Early in 1954 the Government of the Ryukyu Islands ordered a new 'koseki' to be compiled. It will no doubt be more complete in most respects than is the temporary 'koseki'. The demand for a new 'koseki' came about chiefly because Japanese governmental pension agencies 217 [648]

APPENDIX "A"

128 This appendix contains figures upon which Maps 2 through 7 were based. List A is for Map 2, List B for Map 3, and so forth. The figures for Japan and Kagoshima are derived from the Japan Statistical Yearbook, 1950. All other figures are based on data in Ryūkyū tōkei hokoku.

311 List A Arable land under cultivation as a percentage of total land area.
241 The 31 December 1950 figures are used for area of arable land. Figures for total land area are for 31 December 1952. However, the calculation is valid as of the former date because the areas of political units did not change in the two years. The amount of arable land in Naha is negligible; the area for Tokashiki was not available in 'chō'.

311 List B Flooded fields (riceland) as a percentage of total arable land under
243 cultivation, 1950. The figures for Japan and Kagoshima are valid as of 1 August 1947. No acreage of riceland was reported from Ie Shima, Naha, Aguni, Minami Daitō or Kita Daitō.

● 161 List C Population density per square kilometer. The data for Japan and Kagoshima are valid as of 1 August 1948. The data for Okinawa Guntō are valid as of 31 December 1952.

List D Number of persons per acre of arable land under cultivation, 1950. Data for Japan and Kagoshima are valid as of 1 August 1948. The census of persons in Okinawa Guntō was taken on 1 December 1950. The data on acreage of arable land under cultivation were reported 31 December 1950. Inasmuch as December is not a month when new land is reclaimed, the map and figures may be considered valid as of 1 December 1950. No figure is given for Naha because the acreage of arable land is negligible. No figure is given for Minami Daitō because of the great acreage planted to sugar cane. About 9,400 'tan' of the 11,000 'tan' of arable land there is in this crop.

List E Percentage of increase in population, 1940-1950. Data for Japan and Kagoshima are not available for those years. Data for Okinawa Guntō are valid as of 1 October 1940 and 1 December 1950. A minus sign (-) denotes a net decrease. At the time of the 1940 census, some political units were not separate, but were included in towns or cities nearby; therefore the 1950 figure of necessity includes both areas as one.

List F Percentage of increase in population, 1950-1952. Data for Japan and Kagoshima are not available for those years. Data for Okinawa Guntō are valid as of 1 December 1950 and 31 December 1952. The total percentage of increase in the 25 months was 5.55%---these percentages are reported on page 76 of Civil Affairs Activities in the Ryukyu Islands. On the map any area with an increase of less than 5.55% and a decrease of less than 5% was considered an area of moderate emigration. Any area where the decrease exceeded 5% was considered as an area of excessive emigration. An area with more than 5.55% increase but less than 10% increase during that period was considered an area of moderate immigration. Areas in which the increase exceeded 10% are considered as having urban characteristics.

Political Unit	List A	List B	List C	List D	List E	List F
Japan	32.8	55.4	217.7	6.30	----	----
Kagoshima	19.2	37.5	225.5	5.14	----	----
Okinawa Gunto	15.7	16.7	424.6	12.40	22.8	8.9
Kunigami	3.1	36.7	57.1	9.58	20	-7.0
Ogimi	10.3	25.8	139.3	7.72	15	-3.8
Higashi	5.9	33.8	487.6	8.27	11	-5.5
Haneji	9.7	52.0	172.7	8.76	43	-2.0
Yagaji	24.9	26.9	745.2	9.35		-20.5
Nakijin	21.6	13.7	382.2	8.58	29	3.0
Kamimotobu	28.4	4.2	579.7	10.20	35	-1.0
Motobu	12.1	11.3	442.6	17.27		-5.8
Yabu	9.8	29.4	258.6	10.77	45	-3.2
Nago	7.7	46.0	371.2	19.38		15.0
Onna	10.0	32.2	143.9	6.79	33	-2.1
Kushi	4.2	47.2	55.6	7.72	36	-7.8
Ginoza	10.9	25.3	170.1	7.88	56	-11.7
Kin	9.5	35.0	175.1	8.21		-7.0
Ie	24.0	----	281.9	5.84	-4	3.5
Ihaya	16.4	39.2	127.2	4.88	47	6.2
Isena	36.1	40.8	505.9	4.63	9	3.7
Ishikawa	15.7	37.3	977.0	26.90	115	4.9
Misato	13.6	14.5	686.0	23.68		1.6
Tonagusuku	35.1	7.3	699.4	14.12	55	7.1
Katsuren	27.5	5.6	848.4	15.32	44	5.2
Oushikawa	21.9	10.6	983.2	21.40	99	-1.2
Gosku	3.7	16.0	861.7	89.50	128	13.3
Yomitan	7.3	3.9	473.6	29.00	4	5.4
Kadena	4.2	.4	562.3	46.75	11	19.2
Chatan	.1	11.8	853.8	267.20		2.5
Kitanakagusuku	16.0	8.8	700.5	19.43	36	2.1
Nakagusuku	20.1	4.1	631.2	14.60		3.5
Ginowan	21.9	9.3	926.0	17.92	24	5.8
Nishihara	42.2	1.2	457.1	5.73	-21	10.2
Urasoe	24.0	12.0	705.2	12.32	8	4.0

Political Unit	List A	List B	List C	List D	List E	List F
Shuri	23.9	.2	9393.9	59.1	14	9.5
Naha	----	----	10447.5	----	-33	14.4
Mawashi	13.0	2.1	3605.6	71.5	83	15.8
Oroku	11.1	2.0	1157.4	45.8	33	6.6
Tomigusuku	41.7	9.7	490.4	6.36	1	-6.0
Itoman	25.3	16.0	8927.5	231.5	116	10.2
Kanegusuku	47.8	9.4	574.6	5.72	12	0.8
Miwa	36.6	1.8	347.8	4.60	-13	7.1
Takamine	30.2	8.1	389.4	5.84	- 8	2.5
Kochinda	40.4	8.9	566.2	6.28	- 6	2.4
Gushichan	38.3	15.5	480.0	5.90	- 5	0.4
Tamagusuku	32.0	23.1	561.2	8.25	27	-2.2
Chinen	29.3	14.2	589.3	10.20	28	1.6
Sashiki	24.2	16.5	728.8	14.97	33	-3.2
Yonabaru	20.0	.5	1541.5	34.9		16.3
Ozato	38.0	11.5	544.1	6.60	- 5	
Haebaru	56.3	4.0	693.9	5.57	-16	3.2
Nakazato	17.3	39.0	213.1	6.31	24	-1.4
Gushikawa	27.2	23.6	264.9	5.38	20	1.6
Tokashiki	---	22.8	51.4	7.39	11	-10.9
Zamami	8.4	18.7	99.6	6.74	-13	- 3.5
Aguni	34.0	----	320.2	4.52	- 1	11.5
Tonaki	27.1	1.3	264.5	7.39	64	- 1.0
Minami Daitō	36.5	----	67.3	----	-54	15.4
Kita Daitō	26.4	----	39.4	1.21		-14.0